and the fluids in the cup of the flower flow up the proboscis and into the bulb. The bulb is also surrounded by muscles, which, when contracting, compress it. The external opening of the tube has a flap, or valve, which, when the bulb is compressed,

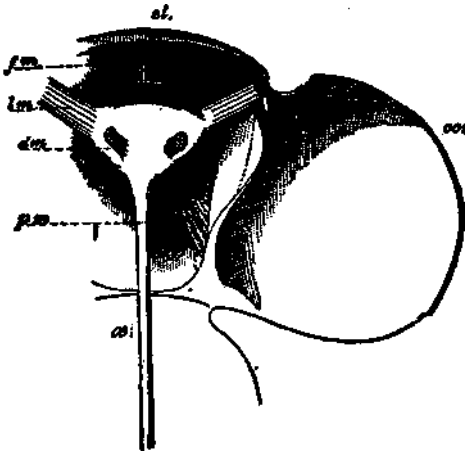

FIG. 32.—Interior view of head of milkweed butterfly: *cl.* clypeus; *cor.* cornea of the eye; *a?.* oesophagus, or gullet; *lfm.* frontal muscle; *dm.* dorsal muscles; *lm.* lateral muscles; *pm.* muscles moving the palpus (Burgess).

FIG. 33.—Labial palpus of *Colias*.

closes and causes the fluid in it to flow backward into the gullet and the stomach. The arrangement is mechanically not unlike that in a bulb-syringe used by physicians. The process of feeding in the case of the butterfly is a process of pumping honeyed water out of the flowers into the stomach.

The length of the proboscis varies; at its base and on either side are placed what are known as the maxillary palpi, which are very small. The lower lip, or *labmm,* which is also almost obsolete in the butterflies, has on either side two organs known as the *labial palpi,* which consist of three joints. In the butterflies the labial palpi are generally well developed, though in some genera they are quite small. The antennae of butterflies are always provided at the extremity with a club-shaped enlargement, and because of this clubbed form of the antennae the entire group are known as the *Khopalocera,* the word being compounded from the Greek